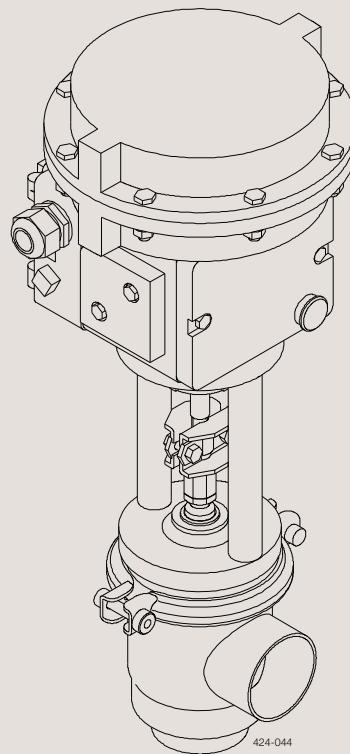




# Instruction Manual

## SPC-2 Sanitary Electro-Pneumatic Modulating Valve



ESE01822-EN6    2015-04

Original manual



The information herein is correct at the time of issue but may be subject to change without prior notice

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# 1 EC Declaration of Conformity

Revision of Declaration of Conformity 2009-12-29

The Designated Company

Alfa Laval Kolding A/S

Company Name

Albuen 31, DK-6000 Kolding, Denmark

Address

+45 79 32 22 00

Phone No.

hereby declare that

Valve

Designation

SPC2 PN10

Type

is in conformity with the following directive with amendments:

- Machinery Directive 2006/42/EC
- Regulation (EC) No 1935/2004

The person authorised to compile the technical file is the signer of this document

QHSE Manager, Quality, Health and safety & Environment

Title

Annie Dahl

Name

Kolding

Place

1997-08-01

Date



Signature



*Unsafe practices and other important information are emphasized in this manual.  
Warnings are emphasized by means of special signs.*

---

### 2.1 Important information

---

**Always read the manual before using the valve!**

#### **WARNING**

Indicates that special procedures **must** be followed to avoid severe personal injury.

#### **CAUTION**

Indicates that special procedures **must** be followed to avoid damage to the valve.

#### **NOTE**

Indicates important information to simplify or clarify procedures.

---

### 2.2 Warning signs

---

General warning:



Caustic agents:



## 2 Safety

---

All warnings in the manual are summarized on this page.

Pay special attention to the instructions below so that severe personal injury and/or damage to the valve are avoided.

---

### 2.3 Safety precautions

---

#### Installation

**Always** read the technical data thoroughly (See chapter 6 Technical data).

**Always** release compressed air after use.



#### Operation

**Always** read the technical data thoroughly (See chapter 6 Technical data).

**Always** release compressed air after use.

**Always** disconnect the electrical connection before dismantling.

**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.

**Never** dismantle the valve with valve and pipelines under pressure.



**Always** handle lye and acid with great care.



#### Maintenance

**Always** observe the technical data thoroughly (See chapter 6 Technical data).

**Always** release compressed air after use.

**Always** disconnect the electrical connection before service



**Never** service the valve when it is hot.

**Never** service the valve with valve and pipelines under pressure.

---

#### Transportation

**Always** secure that compressed air is released .

**Always** secure that all connections are disconnected before attempt to remove the valve from the installation.

**Always** drain liquid out of valves before transportation.

**Always** used predesigned lifting points if defined.

**Always** secure sufficient fixing of the valve during transportation - if special designed packaging material is available it must be used.

---

The instruction manual is part of the delivery. Study the instructions carefully.

## 3.1 Unpacking/delivery

### Step 1

#### CAUTION

Alfa Laval cannot be held responsible for incorrect unpacking.

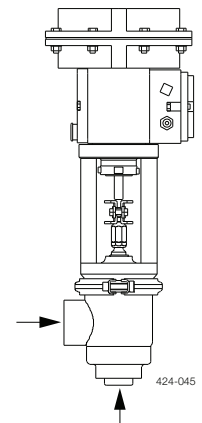
#### Check the delivery:

1. Complete valve.
2. Delivery note.
3. Instruction manual.

### Step 2

Remove possible packing materials from the valve ports.

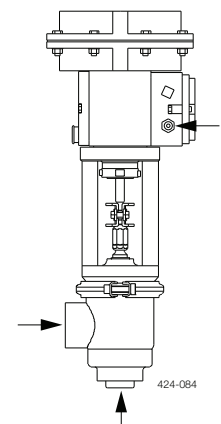
Remove packing materials!



### Step 3

1. Inspect the valve for visible transport damage.

Inspection!

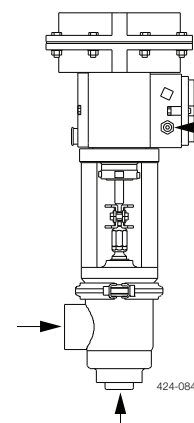


### Step 4

Avoid damaging the air connection, the electrical connection and the valve ports.

Caution!

Air



### 3 Installation

Study the instructions carefully and pay special attention to the warnings!  
The valve has welding ends as standard but can also be supplied with fittings.

#### 3.2 Installation

##### Step 1



**Always** read the technical data thoroughly.  
See chapter 6 Technical data



**Always** release compressed air after use.

##### CAUTION

**Always** let the valve be electrically connected by authorized personnel.  
The I/P-converter of the actuator is adjusted before delivery and must **never** be opened.

##### NOTE

Alfa Laval cannot be held responsible for incorrect installation.

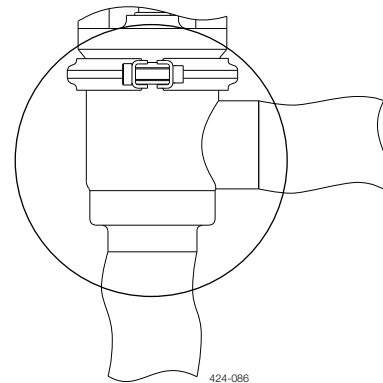
##### Step 2

Avoid stressing the valve.

Pay special attention to:

- Vibrations.
- Thermal expansion of the tubes.
- Excessive welding.
- Overloading of the pipelines.

Risk of damage!

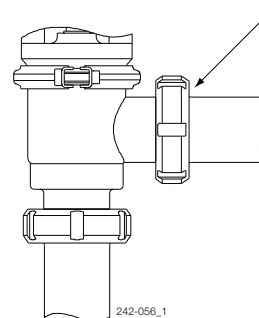


##### Step 3

##### Fittings:

Ensure that the connections are tight.

Remember seal rings!

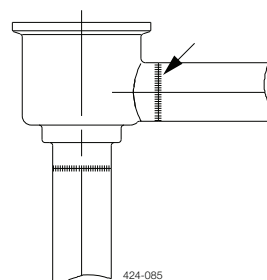


##### Step 4

##### Welding

1. Remove the internal valve parts in accordance with chapter 5.2 Dismantling, Step 1,
2. Weld the valve into the pipelines.
3. Assemble the valve in accordance with chapter 5.3 Reassembly, Step 5

Weld carefully!





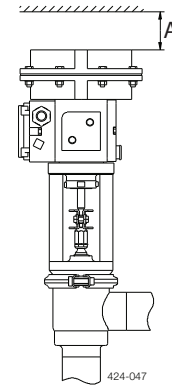
Study the instructions carefully and pay special attention to the warnings!  
The valve has welding ends as standard but can also be supplied with fittings.

#### Step 5

##### Welding into a manifold:

Maintain the minimum clearance (A) so that the actuator can be removed.

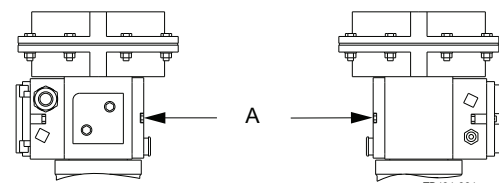
Dimension	A (mm)
38 mm/DN40	100
51 mm/DN50	105
63.5 mm/DN65	130
76 mm/DN80	145
101.6 mm/DN100	180



#### Step 6

##### Electrical connection:

1. Remove the black cover from the actuator.
2. Fit the cable through the cable gland and connect it to the terminal strip. **Ensure correct polarity (11 = +, 12 = -)!**
3. Tighten the cable gland and refit the cover.



A = Cover for electrical connection

### 3.3 Recycling information

#### • Unpacking

- Packing material consists of wood, plastics, cardboard boxes and in some cases metal straps
- Wood and cardboard boxes can be reused, recycled or used for energy recovery
- Plastics should be recycled or burnt at a licensed waste incineration plant
- Metal straps should be sent for material recycling

#### • Maintenance

- During maintenance oil and wear parts in the machine are replaced
- All metal parts should be sent for material recycling
- Worn out or defective electronic parts should be sent to a licensed handler for material recycling
- Oil and all non metal wear parts must be taken care of in agreement with local regulations

#### • Scrapping

- At end of use, the equipment shall be recycled according to relevant, local regulations. Beside the equipment itself, any hazardous residues from the process liquid must be considered and dealt with in a proper manner. When in doubt, or in the absence of local regulations, please contact the local Alfa Laval sales company

## 4 Operation

The valve is adjusted and tested before delivery. The adjustment instructions (chapter 4.3 Adjustment of the valve and 4.4 Adjustment in case of 20 mm stroke deviation) are only to be used if further adjustment is required! Study the instructions carefully and pay special attention to the warnings! Pay attention to possible faults.

### 4.1 General operation

#### Step 1



**Always** read the technical data thoroughly.  
See chapter 6 Technical data



**Always** release compressed air after use.



**Always** disconnect the electrical connection before dismantling.

#### CAUTION

Alfa Laval cannot be held responsible for incorrect operation.

#### NOTE

The I/P-converter of the actuator is adjusted before delivery and must never be opened.

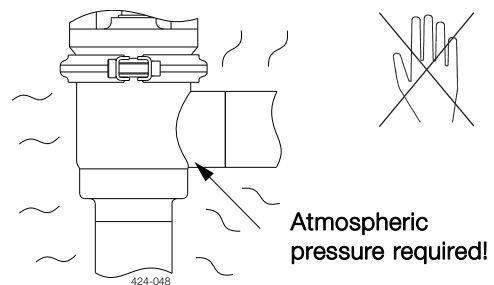
#### Step 2



**Never** touch the valve or the pipelines when processing hot liquids or when sterilizing.



**Never** dismantle the valve with valve and pipelines under pressure.



### 4.2 Fault finding

#### Note!

- Study the adjustment instructions carefully before adjusting the valve. See chapter 4.3 Adjustment of the valve and 4.4 Adjustment in case of 20 mm stroke deviation
- Study the maintenance instructions carefully before replacing worn parts. See 5.1 General maintenance

Problem	Cause/result	Repair
Leaking lip seal at the piston Leaking seal at the valve body	Worn lip seal Incorrect rubber grade	Replace the lip seal Replace with a seal of a different rubber grade
Deviation in the flow regulation	Worn valve plug	Replace the plug and adjust (See chapter 4.3 Adjustment of the valve)
Deviation in the flow regulation	Mechanical parts have come loose (vibrations)	Tighten and adjust (See chapter 4.3 Adjustment of the valve)
Actuator does not regulate	Actuator errors	Return the actuator to the supplier

The valve is adjusted and tested before delivery.

The adjustment instructions on this page are only to be used if further adjustment is required!

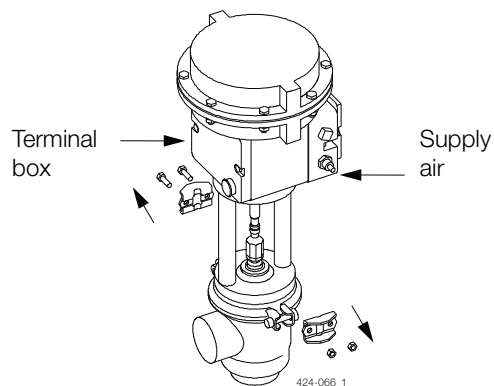
Study the instructions carefully.

Calibrate with care.

### 4.3 Adjustment of the valve

#### Step 1

1. Loosen and remove clamp fitting (9).
2. Remove the cover from the terminal box.
3. Fit air fittings in entry 9 on the actuator.
4. Supply compressed air (4 bar) to the air fittings.



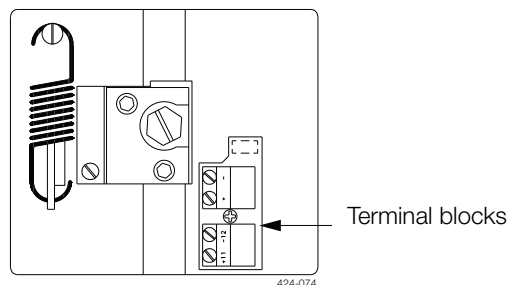
#### Step 2

1. Set the highest signal (20 mA), + on terminal block 11 and - on terminal block 12.

**NOTE!**

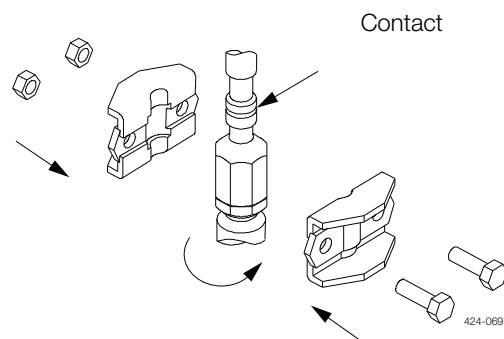
For NC valve the signal must be 4 mA.

2. Make sure that valve plug (2) is pressed against the valve seat.



#### Step 3

1. Adjust valve plug adjuster (7) so that it contacts the actuator piston rod. (Give 1/4 extra turn to give preforce on the plug)
2. Tighten lock nut (8) using a spanner.
3. Fit and tighten clamp fitting (9) to connect the actuator piston rod with valve plug (2).



#### Step 4

Check the stroke by changing the signal from 20 to 4 mA (NO)  
(Opposite if NC).

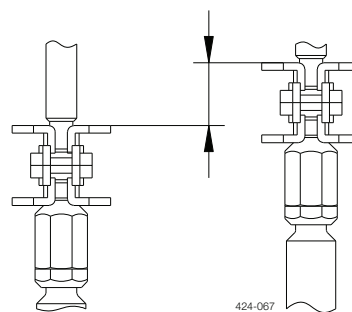
Stroke = 20 mm ±1.

**NOTE!**

In case of deviation from 20 mm stroke, see chapter 4.4

Adjustment in case of 20 mm stroke deviation

Stroke = 20 mm ±1



## 4 Operation

The valve is adjusted and tested before delivery. The adjustment instructions on this page are only to be used if further adjustment is required!

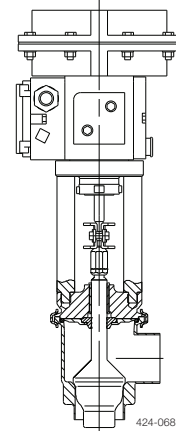
Study the instructions carefully. Adjust with care.

NO = Normally open. NC = Normally closed.

### Step 5

Move valve plug (2) up and down several times and check that the valve plug is still in closed position.

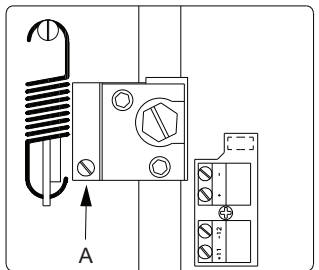
If not, re-adjust.



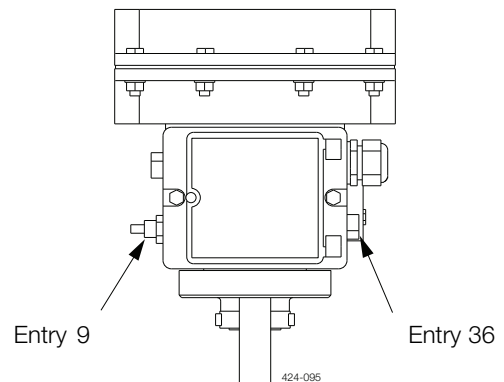
### 4.4 Adjustment in case of 20 mm stroke deviation

#### Step 1

1. Release compressed air.
2. Remove clamp fitting (9).
3. Remove the terminal box cover.
4. Supply compressed air (4 bar) to entry 9.
5. Set the lowest signal (4mA), + on terminal block 11 and - on terminal block 12 (20mA for NC valve).
6. Adjust with the zero-screw (clockwise) to ensure max. open position.



A = Zero-screw

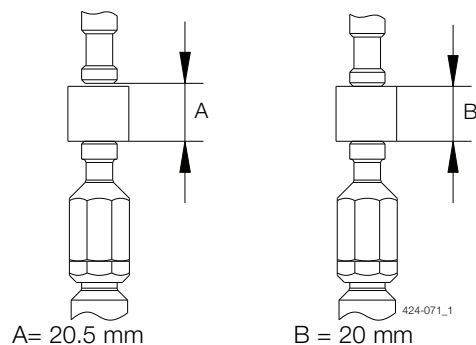


#### Step 2

1. Place a 20 mm block between the actuator piston rod and the valve plug (2).
2. Adjust valve plug adjuster (7) to a position with a distance of 0.5 mm + the 20 mm block between the actuator piston rod and the valve plug (use a gauge blade to determine the 0.5 mm).
3. Adjust with the zero-screw (counterclockwise) until the actuator piston rod contacts the 20 mm block and can be moved slightly. Turn the zero-screw 1/2 round (counterclockwise) to give preforce on the valve plug.

#### NOTE!

Maximum stroke is 21 mm.



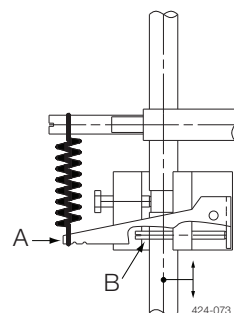
The actuator function can be changed from NO to NC or vice versa.  
 NO = Normally open. NC = Normally closed.  
 Study the instructions carefully.

### Step 3

#### CAUTION!

Do not touch the zero-screw.

1. Pull the spring lever gently down to release the 20 mm block.
2. Remove the 20 mm block.

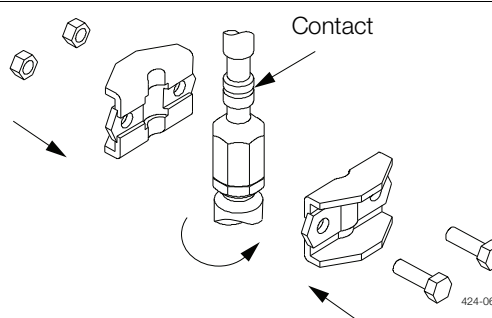


A = Spring lever

B = Zero-screw

### Step 4

1. Set the highest signal (20 mA), + on the terminal block 11 and - on the terminal block 12 (4mA for NC valve) (the actuator piston rod contacts valve plug (2) and gives preference).
2. Fit and tighten clamp fitting (9) to connect the actuator piston rod with the valve plug.
3. Check that the stroke is 20 mm.



## 4.5 Changing of the actuator function

### Step 1

#### NOTE!

Check the actuator type before changing the actuator function.

1. Separate the actuator from the valve according to chapter 5.2 Dismantling, Step 1 - Step 3
2. Unscrew and remove the hexagonal nuts and bolts. The 2 long bolts must be unscrewed and removed last to slowly decompress the springs.
3. Lift off diaphragm case (a) and remove springs (b).
4. Pull out actuator piston rod (c), diaphragm plate (d), plate (e) and diaphragm (f) from yoke (g).
5. Unthread nut (h) while counterholding nut (i). The nut (i) must not be removed on the actuator piston rod. Should the nut be removed, adjust the nut so that the dimension 187.5 mm is assured.

**Pay special attention to the warnings!**

### Step 2

1. Turn over diaphragm plate (d), plate (e) and diaphragm (f) fit them on actuator piston rod (c) and thread on nut (h) again.
2. Fit the actuator piston rod with diaphragm plate, plate and diaphragm in yoke (g).
3. Fit springs (6) and diaphragm case (a).
4. Fit and tighten bolts and hexagonal nuts. Fit and tighten the 2 long bolts first to slowly compress the springs.
5. Connect the actuator piston rod with the valve plug according to chapter 5.3 Reassembly, Step 4 and Step 5.

**Pay special attention to the warnings!**

6. Turn the switch over plate.
7. Adjust the valve as described in chapter 4.3 Adjustment of the valve.

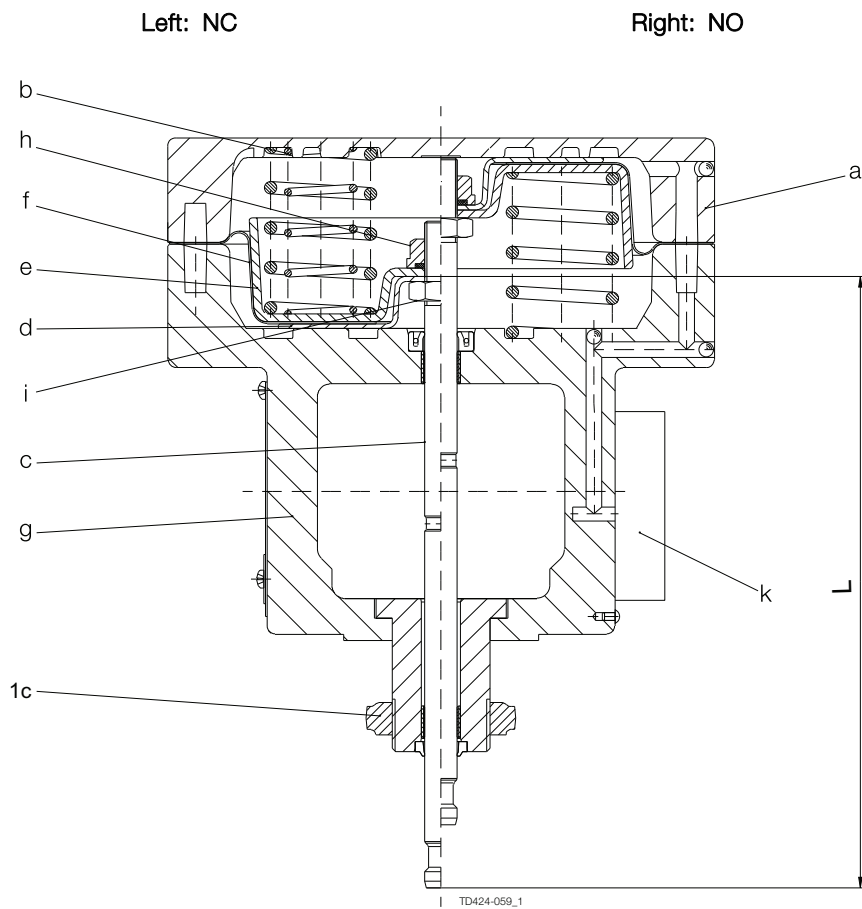
## 4 Operation

The actuator function can be changed from NO to NC or vice versa.

NO = Normally open. NC = Normally closed.

Study the instructions carefully.

### Step 3



L = 187.5 mm

The valve is designed for Cleaning In Place (= CIP).  
 Study the instructions carefully and pay special attention to the warnings!  
 NaOH = Caustic Soda.  
 HNO<sub>3</sub> = Nitric acid.

### 4.6 Recommended cleaning

#### Step 1



**Always** handle lye and acid with great care.

**Caustic danger!**



**Always** use  
rubber gloves!

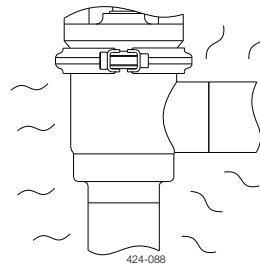


**Always** use  
protective goggles!

#### Step 2



**Never** touch the valve or the pipelines when sterilizing.



**Burning danger!**

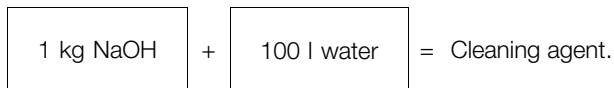


#### Step 3

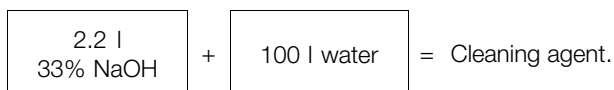
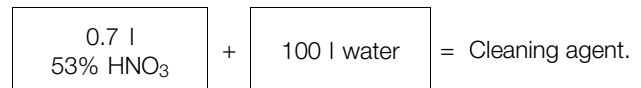
**Examples of cleaning agents:**

Use clean water, free from chlorides.

1. 1% by weight NaOH at 70° C



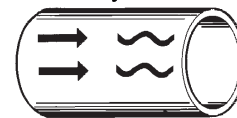
2. 0.5% by weight HNO<sub>3</sub> at 70° C



#### Step 4

- Avoid excessive concentration of the cleaning agent.  
 ⇒ Dose gradually.
- Adjust the cleaning flow to the process.  
 ⇒ Sterilization of milk/viscous liquids.  
 ⇒ Increase the cleaning flow.
- Always** rinse well with clean water after the cleaning.

**Always rinse!**



Clean water    Cleaning agents

#### Step 5

##### NOTE

The cleaning agents must be stored/disposed of in accordance with current rules/directives.

## 5 Maintenance

---

Maintain the valve carefully.  
Study the instructions carefully and pay special attention to the warnings!  
Always keep spare seal and guide rings in stock.

---

### 5.1 General maintenance

---

#### Step 1



**Always** read the technical data thoroughly.  
See chapter 6 Technical data



**Always** release compressed air after use.



**Always** disconnect the electrical connection before service.

#### CAUTION!

The I/P-converter of the actuator is adjusted before delivery and must **never** be opened.

#### NOTE

All scrap must be stored/discharged in accordance with current rules/directives.

---

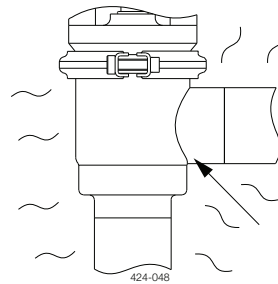
#### Step 2



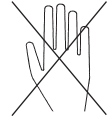
**Never** service the valve when it is hot.



**Never** service the valve with valve and pipelines under pressure.



**Burning danger!**



**Atmospheric pressure  
required!**

---



Study the instructions carefully.

The items refer to the drawings and the parts list - see chapter 7 Parts list and Service Kits.

Handle scrap correctly.

NO = Normally open. NC = Normally closed.

## Ordering spare parts

- Contact the Sales Department.
- Order from the Spare Parts List.

## Recommended spare parts: Service kits (see Spare Parts List).

	Valve lip seal	Valve bearing
Preventive maintenance	<b>Replace after 12 months</b>	Replace when replacing the lip seal
Maintenance after leakage (leakage normally starts slowly)	<b>Replace by the end of the day</b>	Replace when replacing the lip seal
Adjusted maintenance	Regular inspection for leakage and smooth operation  Keep a record of the valve  Use the statistics for planning of inspections  <b>Replace after leakage</b>	Replace when replacing the lip seal
Lubrication	<b>Before fitting</b> Silicone grease or silicone oil	None

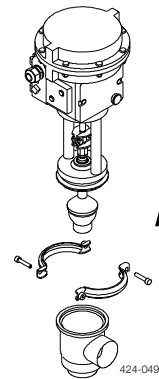
## 5.2 Dismantling

### Step 1

1. Supply compressed air and current of 20mA to open the NC version.

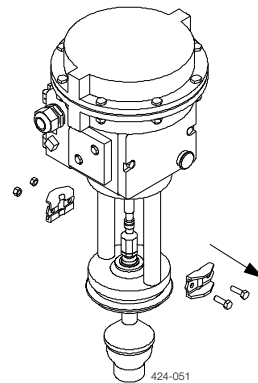
**Pay special attention to the warnings!**

2. Remove clamp (3).
3. Remove the actuator and the internal valve parts.
4. Remove seal ring (4c).



### Step 2

Loosen and remove clamp fitting (9).



## 5 Maintenance

---

Study the instructions carefully.

The items refer to the drawings and the parts list - see chapter 7 Parts list and Service Kits.

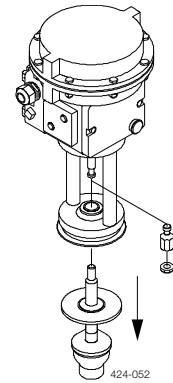
Handle scrap correctly.

NO = Normally open. NC = Normally closed.

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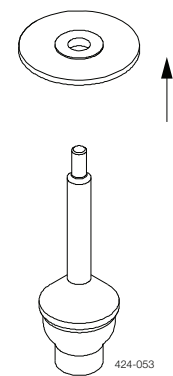
### Step 3

1. Loosen and unscrew lock nut (8) and valve plug adjuster (7), using a spanner.
2. Remove valve plug (2).



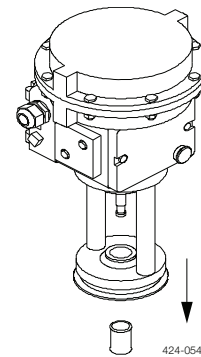
### Step 4

1. Pull off lip seal (4a) and plate (4b).



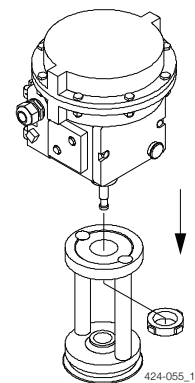
### Step 5

1. Remove bearing (6).
2. Replace the bearing lip seal (4a) and seal ring (4c).



### Step 6

1. Loosen striking nut (10) using a plastic hammer.
2. Separate actuator (11) from bonnet (5).

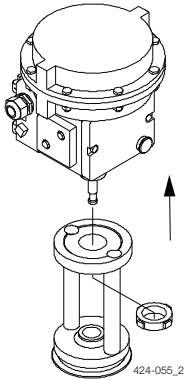


Study the instructions carefully. The items refer to the drawings and the parts list - see chapter 7 Parts list and Service Kits  
Lubricate the lip seal before fitting it.  
NO = Normally open. NC = Normally closed.

5.3 Reassembly

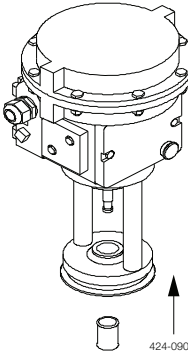
Step 1

- 1. Fit bonnet (5) on actuator (11).
- 2. Tighten striking nut (10) using a plastic hammer.



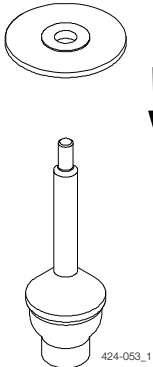
Step 2

Fit bearing (6) in bonnet (5).



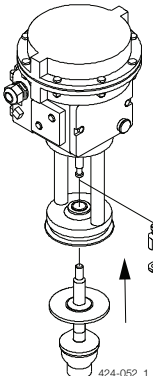
Step 3

Fit lip seal (4a) and plate (4b) on valve plug (2).



Step 4

Screw lock nut (8) and valve plug adjuster (7) onto valve plug (2).



## 5 Maintenance

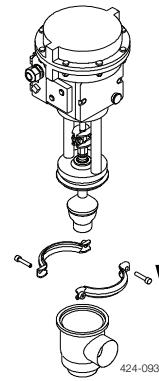
Study the instructions carefully. The items refer to the drawings and the parts list - see chapter 7 Parts list and Service Kits  
Lubricate the lip seal before fitting it.  
NO = Normally open. NC = Normally closed.

### Step 5

1. Supply compressed air and current of 20 mA to open the NC version.

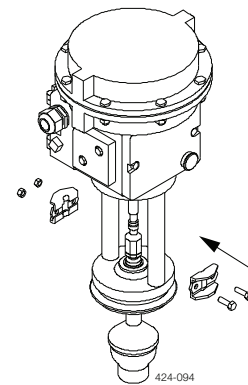
**Pay special attention to the warnings!**

2. Fit seal ring (4c) in valve body (1).
3. Fit the actuator and the internal valve parts.
4. Fit and tighten clamp (3).



### Step 6

1. Adjust the valve plug adjuster so that it contacts the actuator piston rod.
2. Tighten lock nut (8) using a spanner.
3. Fit and tighten clamp fitting (9) to connect the actuator piston rod with valve plug (2).



*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

### 6.1 Technical data

It is remote-controlled by an electrical signal and compressed air.

The IP-converter, which is an integrated part of the actuator, converts the electrical signal to a pneumatic signal. This signal conversion is extremely insensitive to pressure shocks.

The pneumatic signal is transmitted to the integrated positioner which operates by means of the force-balance principle, ensuring that the position of the actuator piston is directly proportional to the input signal.

Signal range and zero point can be adjusted individually. The actuator can be used for split-range operation by using a different measuring spring.

<b>Valve - data</b>	
Max. product pressure	1000kPa (10bar)
Min. product pressure	Full vacuum
Temperature range	-10°C to +140°C (EPDM)
Flow range Kv	0.5 to 110 m <sup>3</sup> /h/bar
Max. pressure drop	500 kPa (5bar)
<b>Valve - materials</b>	
Product wetted steel parts	AISI 316L
Other steel parts	AISI 304
Lip seal	EPDM (standard)
Finish	Semi bright
<b>Actuator - air data</b>	
Air consumption at steady state condition	With 0.6 bar signal pressure and supply pressures up to 6 bar ≤ 100 l/h
Connection	6/4 mm air tube
Max. air pressure	600 kPa (6 bar)
Working pressure	400 kPa (4 bar)
Max. size of particles	0.01 mm
Max. oil content	0.08 ppm
Dew point	10°C below ambient temp. or lower
Max. water content	7.5g/kg
<b>Actuator - transducer/convector</b>	
Signal range	4-20mA (standard)
Input resistance	200Ω
Inductivity/capacitance	Negligible
<b>Actuator - accuracy</b>	
Deviation	≤ 1.5%
Hysteresis	≤ 0.5%
Sensitivity	< 0.1%
Influence of air supply	≤ 0.1% between 1.4 and 6 bar
<b>Actuator - data</b>	
Protection class	IP54
Ambient temperature	-25°C to +70°C
<b>Actuator - materials</b>	
Housing	Aluminium with plastic coating
Diaphragm	NBR with reinforced fabric insert
Springs	Stainless steel uncovered/spring steel epoxy resin coated
Stem	Stainless steel
Plastic parts	Polycarbonate/polyamide 6.6
Screws, nuts	Stainless steel, polyamide 6.6
Other parts	Stainless steel and aluminium

## 6 Technical data

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*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.*

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### Weight (kg)

Size	38	51	63.5	76.1	101.6 mm		40	50	65	80	100 DN	
	mm	mm	mm	mm	NO	NC	DN	DN	DN	DN	NO	NC
Weight (kg)	7.5	8.2	14.0	15.0	18.3	27.3	7.5	8.2	14.0	15.0	18.3	27.3

### Noise

One meter away from - and 1.6 meter above the exhaust the noise level of a valve actuator will be approximately 77dB(A) without noise damper and approximately 72 dB(A) with noise damper - Measured at 7 bars air-pressure.

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*It is important to observe the technical data during installation, operation and maintenance.  
Inform the personnel about the technical data.  
NO = Normally open. NC = Normally closed.*

### 6.2 Selection / Pressure drop - capacity diagram

#### NOTE!

Different springs are available for different actuator thrusts.  
Always return the actuator to the supplier if changing the springs.

Kv	Seat area (cm <sup>2</sup> )	Seat diam. (mm)	Tube connections (mm)		Actuator (type no.)		NO Piston thrust (N) at air pressure (bar)				NC Piston thrust spring (N)
			ISO	DIN	NO	NC	3.0	4.0	5.0	6.0	
0.5 E	0.3	6	38	40	3277-5	3277-5	800	2000	3200	4400	1500
1.0 E	0.8	10	38	40	3277-5	3277-5	800	2000	3200	4400	1500
2 E	1.1	12	38	40	3277-5	3277-5	800	2000	3200	4400	1500
4 E	1.5	14	38	40	3277-5	3277-5	800	2000	3200	4400	1500
8 E	4.2	23	38	40	3277-5	3277-5	800	2000	3200	4400	1500
16 E	6.6	29	38	40	3277-5	3277-5	800	2000	3200	4400	1500
32 E	18.5	48.5	51	50	3277-5	3277-5	800	2000	3200	4400	1500
64 L	20.5	51	63.5	65	3277-5	3277-5	800	2000	3200	4400	1500
75 L	20.5	51	76	80	3277-5	3277-5	800	2000	3200	4400	1500
110 L	40.7	72	101.6	100	3277-5	3277*	800	2000	3200	4400	2800

\*) Effective diaphragm area = 350 cm<sup>2</sup> (all others = 120 cm<sup>2</sup>).

What product pressure below the plug will open the valve?

$$P = \frac{F \times 10}{A} \quad (\text{kPa})$$

P = Product pressure (bar)  
 A = Seat area (cm<sup>2</sup>)  
 d = Seat diameter (mm)  
 F = Piston thrust (N)

Example:

Kv 32E , 4 bar air pressure (NO), A = 18.5 cm<sup>2</sup>, F = 2000 N

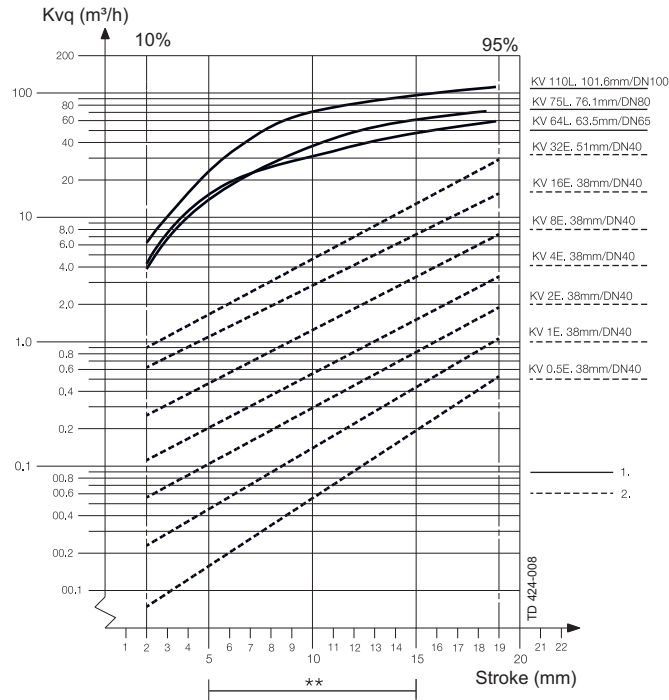
$$\Rightarrow P = \frac{2000 \times 10}{18.5} = 1080 \text{ kPa} \approx 10.8 \text{ bar}$$

The valve opens at product pressure above 10 bar.

## 6 Technical data

It is important to observe the technical data during installation, operation and maintenance.  
 Inform the personnel about the technical data.  
 NO = Normally open. NC = Normally closed.

### Pressure Drop Calculation



The Kv designation is the flow rate in m<sup>3</sup>/h at a pressure drop of 1 bar when the valve is fully open (water at 20°C or similar liquids). The Kv value at other pressure drops is calculated according to the following formula:

$$Kvq = \frac{Q}{\sqrt{\Delta p}}$$

Where:

Kvq = Flow coefficient (m<sup>3</sup>/h at  $\Delta p = 1$  bar).

Q = Flow rate (m<sup>3</sup>/h).

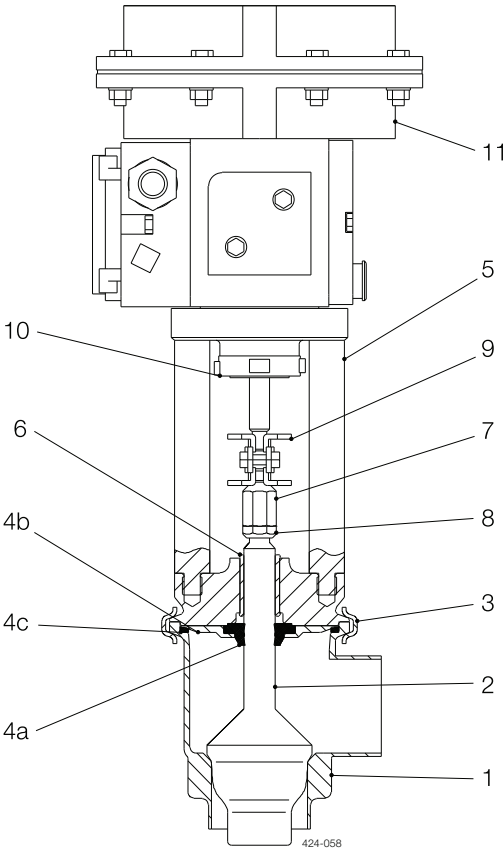
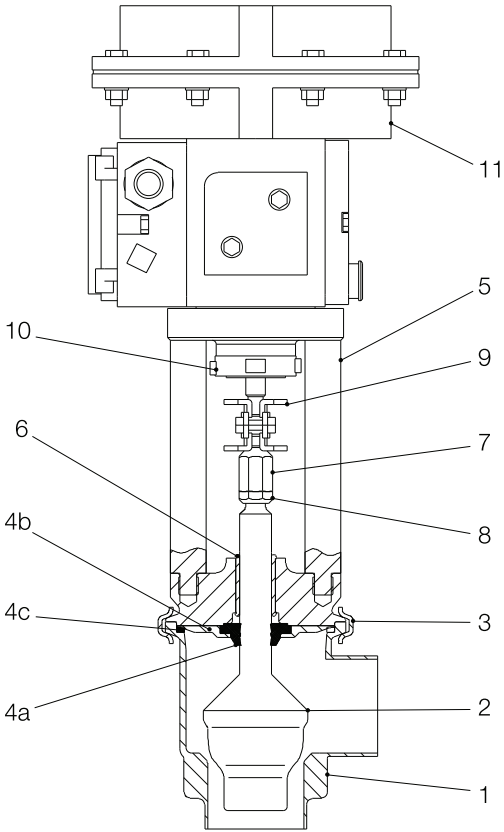
$\Delta p$  = Pressure drop over valve (bar).



# 7 Parts list and Service Kits

The drawing and the parts list include all items.  
The items are identical with the items in the Spare Parts List.  
When ordering spare parts, please use the Spare Parts List!

## 7.1 Parts list and Service Kits

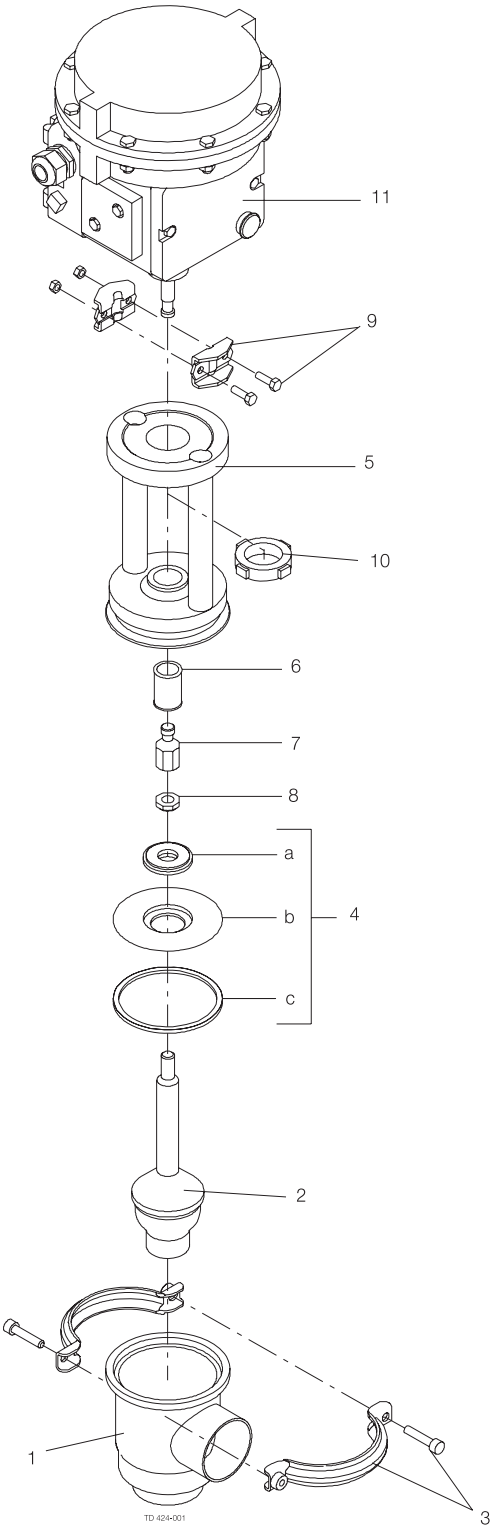
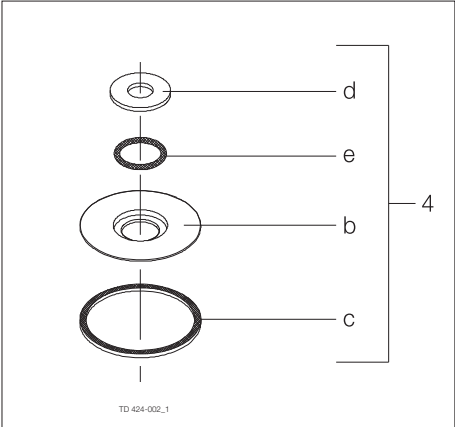




# 7 Parts list and Service Kits

The drawing and the parts list include all items.  
 The items are identical with the items in the Spare Parts List.  
 When ordering spare parts, please use the Spare Parts List!

### Parts for PTFE/FEP seal Alternative Stem seal 2



## 7 Parts list and Service Kits

The drawing and the parts list include all items.  
 The items are identical with the items in the Spare Parts List.  
 When ordering spare parts, please use the Spare Parts List!

### Parts list

Pos.	Qty	Denomination
1	1	Valve body
2	1	Plug
3	1	Clamp
4	1	Lip seal kit
4a □	1	Lip seal
4b	1	Plate
4c □	1	Seal ring
4d	1	Washer
4e □	1	O-ring, FEP
5	1	Bonnet complete
6 □	1	Guide ring
7	1	Valve plug adjuster
8	1	Lock nut
9	1	Clamp fitting
10	1	Striking nut
11	1	Actuator complete

### Service kits

Denomination	38 mm DN40	51 mm DN50	63.5 mm DN65	76.1 mm DN80	101.6 mm DN100
<b>Service kit for Product wetted parts</b>					
Service kit EPDM .....	9611920419	9611920419	9611920423	9611920423	9611920423
Service kit NBR .....	9611920420	9611920420	9611920424	9611920424	9611920424
Service kit FPM .....	9611920421	9611920421	9611920425	9611920425	9611920425
Service kit PTFE/FEP .....	9611920422	9611920422	9611920426	9611920426	9611920426

Parts marked with □ are included in the Service kits.

Recommended Spare Parts: Service kits.

TD 900-402/2



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